

**COMMONWEALTH OF VIRGINIA**  
**Department of Environmental Quality**  
**Tidewater Regional Office**

**STATEMENT OF LEGAL AND FACTUAL BASIS**

Naval Air Station Oceana  
Virginia Beach, Virginia  
Permit No. VA-60294

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Naval Air Station Oceana has applied for a Title V Operating Permit for its military facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:\_\_\_\_\_

Date:\_\_\_\_\_

Air Permit Manager:\_\_\_\_\_

Date:\_\_\_\_\_

Regional Director:\_\_\_\_\_

Date:\_\_\_\_\_

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## **FACILITY INFORMATION**

### Permittee

Department of the Navy  
Commander, Navy Region Mid-Atlantic  
9742 Maryland Avenue  
Norfolk, VA 23511-3095

### Facility

Naval Air Station Oceana  
Virginia Beach, VA 23460-5120

AIRS ID No. 51-810-00004

## **SOURCE DESCRIPTION:**

**SIC Codes: 9711 (National Security), 3721(Aircraft), 4581(Airports, flying fields, and services)**

Naval Air Station Oceana (NASO) is a full service master jet base which serves the United States Navy. NASO occupies approximately 13,185 acres and employs and houses up to 15,000 personnel. NASO is the major Atlantic Division air station for NAVY's Atlantic Fleet operations. This application covers air emissions units associated with the operations, supply, and maintenance activities conducted at NAS Oceana. These activities include the Public Works Center (PWC), the squadron specific activities, and the Aircraft Intermediate Maintenance Department (AIMD). These activities are responsible for maintaining air wing readiness pre and post deployment including, but not limited to aircraft and equipment maintenance and overhaul, supply, unit training, etc.

Naval Air Station Oceana (NASO) has a comprehensive facility-wide permit dated July 11, 2000 that includes all previously permitted equipment at the facility. They are a major source for TSP, PM-10, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC and a major source for hazardous air pollutants. NASO is classified as an aerospace rework facility and is subject to 40 CFR 63, Subpart GG.

## **SIGNIFICANT EMISSION UNITS AND CONTROL DEVICE IDENTIFICATION**

The unit reference number, fuel type, rated capacity, and type of control equipment (if applicable) are provided below for each significant emission unit under each source category. Additional information such as the stack id. no., manufacturer name/model no., date of construction, pollutant control device identification no., and pollutants controlled can be found in the Title V permit application.

### **Abrasive Blasting Units**

- One (1) plastic media blasting booth with a baghouse (Ref. No. ABRA-001)

### **Boilers**

- Three (3) No. 4 fuel oil/natural gas boilers each rated at 70.0 million BTU/hour (Ref. Nos. BOIL-006, BOIL-007, and BOIL-008)
- Two (2) natural gas boilers each rated at 1.5 million BTU/hr (Ref. Nos. BOIL-053 and BOIL-054)

### **Degreasing**

- Twenty (27) non-halogenated cold cleaning units (Ref. No. DEGS-GRP1)

### **Generators**

- Two (2) diesel peak shaving/emergency generators each rated at 1600 kW or 17.0 million BTU/hr (Ref. Nos. ICGF-012 and ICGF-013)

### **Jet Engine Testing**

- Four jet engine test cells (Ref. Nos. ENGT-001, ENGT-002, ENGT-003, and ENGT-004)

### **Fuel Pumping Stations**

- Two (2) gasoline service stations (Ref. Nos. GSTA-001 and GSTA-005) with Stage I Vapor Control

### **Painting**

- One (1) corrosion control hanger (Ref. No. PNTS-047) with a three stage dry filter system
- Multiple aircraft painting operations within seven (7) aircraft painting hangers (Ref. Nos. HANG-023, HANG-111, HANG-122, HANG-137, HANG-200, HANG-404, and HANG-500) and Bldg. 513 (Ref. No. PNTS-700)
- Two (2) spray paint booths (Ref. No. PNTS-003 and PNTS-004) with dry filters

### **Storage Tanks**

- Two (2) JP-5 storage tanks each having a capacity of 20,000 gallons (Ref. Nos. TNKU-022 and TNKU-064)
- Two (2) JP-5 storage tanks each having a capacity of 940,000 gallons (Ref. Nos. TNKA-133 and TNKA-146)
- One (1) JP-5 storage tank having a capacity of 210,000 gallons (Ref. No. TNKU-077)

### **Woodworking**

- One (1) woodworking shop with a cyclone (Ref. No. WOOD-012)

### **COMPLIANCE STATUS**

The facility is included in an approved Air Inspection Plan. The facility has not been found to be in violation of any federal or state applicable requirements.

### **EMISSIONS INVENTORY**

NASO provided their 2001 facility emissions summary. Totals for each criteria and hazardous air pollutant are included. Total actual emissions for 2001 are the following:

PM-10	=	53.3 tpy
SO <sub>2</sub>	=	103.4 tpy
NO <sub>x</sub>	=	206.0 tpy
CO	=	195.7 tpy
VOC	=	75.3 tpy
HAPS	=	0.0 tpy

### **EMISSION UNIT APPLICABLE REQUIREMENTS**

The July 11, 2000 permit identifies all of the applicable requirements for each emission unit within each source category at the facility (except for degreasing, fuel pumping station, jet engine testing, and woodworking operations). The conditions from the NSR permit have been placed in the Title V permit as applicable requirements. The applicable requirements are listed per source category and unit and include all emission/operating limitations, recordkeeping, reporting, and monitoring requirements for each unit in each source category. The Title V permit outlines the applicable requirements by each source category.

Additional applicable requirements identified in the Title V permit other than those in the July 11, 2000 NSR permit are the following Virginia Administrative Codes:

### **9 VAC 5 Chapter 40, Article 24: Solvent Metal Cleaning Operations – Degreasing (DEGS)**

1. Vapor control is required for each cold cleaner (Ref. No. DEGS-GRP1) to remove, destroy, or prevent the discharge into the atmosphere of at least 85% by weight of volatile organic compound emissions. Achievement of the 85% vapor control shall be done by the following:
  - i. Covers or enclosed remote reservoirs;
  - ii. Drainage facilities to collect and return solvent to a closed container or a solvent cleaning machine;
  - iii. A permanent label, summarizing the operating procedures in 9 VAC 5-40-3290 C (2)(a-c) on/near the cold cleaning unit(s);
  - iv. If used, the solvent spray should be a solid, fluid stream (not a fine, atomized or shower type spray) and at a pressure which does not cause excessive splashing; (9 VAC 5-40-3280 C(1-2) & 9 VAC 5-40-3290 (C) & (D) of State Regulations, Rule 4-24)

2. The following operating procedures for the cold cleaning units (Ref. No. DEGS-GRP1) shall be followed:
  - i. Waste solvent should not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate to the atmosphere. Waste solvent shall be stored in containers only.
  - ii. The cold cleaning unit cover should be closed whenever not handling parts in the cold cleaner.
  - iii. Cleaned parts should drain for at least 15 seconds or until dripping ceases.  
(9 VAC 5-40-3290 C(2)(a-c) of State Regulations, Rule 4-24)
3. Disposal of waste solvent from the cold cleaning units (Ref. No. DEGS-GRP1) shall be done by one of the following:
  - i. Reclamation (either by outside services or in-house), or
  - ii. Incineration.  
(9 VAC 5-40-3290 (D) of State Regulations, Rule 4-24)

**9 VAC 5 Chapter 40, Article 37: Petroleum Liquid Storage and Transfer Operations – Fuel Pumping Stations (GSTA)**

Vapor control is required to remove, destroy, or prevent the discharge into the atmosphere of at least 90% by weight of VOC emissions for the gasoline service stations (Ref. Nos. GSTA-001, GSTA-005, and GSTA-010). The control system must include one of the following:

- i. A submerged fill pipe;
- ii. A vapor control system with a vapor tight return line from the storage container to the tank truck or adsorption system or condensation system or any system with equal or greater control efficiency;
- iii. A vapor control system with the vapor balance portion meeting the criteria listed in 9 VAC 5-40-5230 E(3).  
(9 VAC 5-40-5200 of State Regulations, Rule 4-37)

**9 VAC 5 Chapter 40, Article 17: Woodworking Operations – Woodworking (WOOD)**

1. Particulate emissions from each woodworking shop (Ref. No. WOOD-012) shall not exceed 0.05 grains per standard cubic feet of exhaust gas.  
(9 VAC 5-40-2270 B of State Regulations, Rule 4-17)
2. Particulate emissions shall not be discharged into the atmosphere from the woodworking shop (Ref. No. WOOD-012) without providing, as a minimum, adequate duct work and properly designed collectors or other such devices, as approved by the board.  
(9 VAC 5-40-2270 A of State Regulations, Rule 4-17)

**9 VAC 5 Chapter 50, Article 1 - Asbestos**

The permittee shall conduct the following activities in accordance with 40 CFR 61, Subpart M:

- i. Renovation and removal activities involving asbestos containing material (ACM) using licensed, trained facility personnel or contractors,
- ii. Disposal of asbestos generated waste, and
- iii. Any air cleaning activities associated with renovation and removal of ACM.  
(9 VAC 5-60-70 of State Regulations, 40 CFR 61, Subpart M, 61.145)

### **9 VAC 5 Chapter 40, Article 39 – Asphalt Paving Operations**

The permittee shall manufacture, mix, store, use, and apply liquefied asphalt for paving operations only if it is of the emulsified asphalt type.  
(9 VAC 5-40-5510 of State Regulations, Rule 4-39)

9 VAC 5 Chapter 80 Article 1: Federal Operating Permits for Stationary Sources

9 VAC 5 Chapter 80 Article 4: Insignificant Activities

9 VAC 5 Chapter 80 Article 2: Permit Program Fees for Stationary Sources

9 VAC 5 Chapter 170 General Administration

## **PERIODIC MONITORING**

### **Abrasive Blasting Booth (ABRA-001)**

The plastic media blasting booth has no emission limits. The source is required to keep annual throughput records of the plastic grit media used for both booths. No additional periodic monitoring is required for emissions.

The blasting booth has an opacity limit of five (5) percent - no visible emission is expected. Additional periodic monitoring for visible emissions include a monthly Method 22 observation with corrective action and/or Method 9 if visible emissions are observed. Naval Air Station Oceana (NASO) is required to keep records of each monthly periodic visible emission check, and any corrective action taken or Method 9 test performed.

### **Boilers (BOIL-006, BOIL-007, BOIL-008, BOIL-053, and BOIL-054)**

#### **BOIL-006, BOIL-007, BOIL- 008 – No. 4 Fuel Oil/Natural Gas Boilers**

Each boiler has an opacity limit of twenty (20) percent - no visible emissions are expected. Additional periodic monitoring for visible emissions include a monthly visible emission observation with corrective action and/or Method 9 if an opacity is observed. NASO is required to keep records of each monthly visible emission check on each boiler, and any corrective action taken on a boiler including a Method 9 visible emission test.

In addition to the recordkeeping for the monthly periodic visible emission test, NASO is required to keep records on site of all DEQ approved emission factors and calculations in order to show a reasonable assurance of compliance with any emission limitations/standard for each boiler.

The boilers have a TSP/PM-10, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limit. The source is required to keep annual throughput records of the No. 4 fuel oil burned and natural gas for all three boilers. Keeping annual records will demonstrate a reasonable assurance of compliance with each ton per year emission limit since it is based on the maximum allowable annual throughput of 4,620,000 gal/yr of No. 4 fuel oil or 400 million cubic feet of natural gas. In addition, sample formulas/calculations are provided that can be used to demonstrate a reasonable assurance of compliance with each lb/hr emission limit since limits are based on the maximum rated capacity of each boiler (70 million BTU/hr) – no additional periodic monitoring is required for the emission limits.

Emission Factors: AP-42, October 1996 - These factors were used when the boilers were originally permitted.

SCC 10300504 Residual Oil

TSP/PM-10 = 2 lb/1000 gal

SO<sub>2</sub> = 150(S) = 150 lb/1000 gal

NO<sub>x</sub> = 20 lb/1000 gal

CO = 5 lb/1000 gal

VOC = 0.2 lb/1000 gal

SCC 10200602 – Natural Gas

TSP/PM-10 = 3 lb/mmft<sup>3</sup>

SO<sub>2</sub> = 0 lb/mmft<sup>3</sup>

NO<sub>x</sub> = 140 lb/ft<sup>3</sup>

CO = 35 lb/ft<sup>3</sup>

VOC = 2.8 lb/ft<sup>3</sup>

Maximum Annual No. 4 Fuel Oil Throughput (3 boilers) = 4,620,000 gal/yr

Maximum Annual Natural Gas Throughput (3 boilers) = 400 million cubic feet/yr

Maximum Sulfur Content (No. 4 Fuel Oil) = 1.0%

The following formulas were used to determine the permitted emission limits and will assure compliance with the emission limitations for each boiler and for all boilers combined:

Lb/hr(No. 4 FO)

Maximum Rated Capacity (mmBTU/hr) x 1/Heat Content (BTU/gal) x 1,000,000 BTU/mmBTU x  
Emission Factor (lb/1000 gal)

Lb/hr(NG)

Maximum Rated Capacity (mmBTU/hr) x 1/Heat Content (BTU/mmcf) x 1,000,000 BTU/mmBTU  
x Emission Factor (lb/mmcf)

Ton/yr (No. 4 FO)

Maximum Permitted Throughput (gal/yr) x Emission Factor (lb/1000 gal) x 1 ton/2000 lb

Ton/yr (NG)

Maximum Permitted Throughput (mmcf/yr) x Emission Factor (lb/mmcf) x 1 ton/2000 lb

Ex: NO<sub>x</sub>

70 mmBTU/hr x 1/144,000 Btu/gal x 1,000,000 BTU/mmBTU x 20 lbs/1000 gal  
= 9.8 lb/hr

70 mmBTU/hr x 1/1,000 Btu/mmcf x 140 lbs/mmcf = 9.8 lb/hr

**Hourly Emission Limit = 9.8 lbs/hr (worst case fuel)**

4,200,000 gal No. 4 FO/yr x 20 lbs/1000 gals x 1 ton/2000 lbs = 346.5 tpy

400 mmcf NG/yr x 140 lbs/mmcf x 1 ton/2000 lbs = 28.0 tpy

**Annual Emission Limit = 346.5 tpy (worst case fuel)**

**BOIL-053, BOIL-054 - Natural Gas Boilers**

Each boiler has an opacity limit of twenty (20) percent - no visible emissions are expected. Additional periodic monitoring for visible emissions include a monthly visible emission observation with corrective action and/or Method 9 if an opacity is observed. NASO is required to keep records of each monthly visible emission check on each boiler, and any corrective action taken on a boiler including a Method 9 visible emission test.

In addition to the recordkeeping for the monthly periodic visible emission test, NASO is required to keep records on site of all DEQ approved emission factors and calculations in order to show a reasonable assurance of compliance with any emission limitation/standard for each boiler.

BOIL-053 and BOIL-054 have a NO<sub>x</sub> emission limit. The source is required to keep annual throughput records (calculated monthly as the sum of each consecutive 12-month period) of the natural gas burned in the boilers. Keeping annual records will demonstrate a reasonable assurance of compliance with each ton per year emission limit since limits are based on the maximum allowable annual throughput for the boilers. In addition, sample formulas/calculations are provided that can be used to demonstrate a reasonable assurance of compliance with each lb/hr emission limit since limits are based on the maximum rated capacity of each boiler – no additional periodic monitoring is required for the emission limits.

**BOIL-053 and BOIL-054**

SCC 10200602 – This emission factor was used when the boilers were originally permitted in 1998.

NO<sub>x</sub> = 100 lb/million ft<sup>3</sup>

Natural Gas HHV = 1,000 BTU/cubic ft = 0.001 million BTU/cubic ft

Maximum Annual NG Throughput = 1.5 million BTU/hr / 0.001 mmBTU/cubic ft x 8760 hr/yr = 13,140,000 cubic ft/yr = 13.14 million cubic ft/yr

Maximum Hourly NG Throughput Capacity = 1.5 mmBTU/hr (each) / 0.001 mmBTU/cubic ft = 1,500 cubic ft/hr = 0.0015 million cubic ft/hr

NO<sub>x</sub>: 0.0015 million cubic ft/hr x 100 lb/million cubic ft = 0.2 lb/hr

13.14 million cu. ft/yr x 100 lb/million cu. ft x 1 ton/2000 lb = 0.65 tpy x 2 boilers = 1.3 tpy

**Degreasing (DEGS-GRP1)**

Periodic monitoring was added for the non-halogenated cleaning units. These units are subject only to the proper operation, maintenance and control requirements of 9 VAC 5 Chapter 40, Rule 4-24. Monitoring and recordkeeping requirements were added consisting of an annual inspection of the degreasing process to demonstrate compliance with the operational and control requirements of 9 VAC 5-40-3280 and 3290.

### **Generators (ICGF-012 and ICGF-013)**

Each generator has an opacity limit of twenty (20) percent. The periodic monitoring for the visible emission limit requires NASO to make a once per year visible emission observation while the units are operating under full load to assure compliance with the twenty (20) percent opacity limit. If any visible emissions are noted, NASO is required to take corrective action or perform a tiered Method 9 visible emissions evaluation (VEE) to show compliance with the twenty (20) percent opacity limit. NASO is required to keep records of each annual periodic visible emission check, and any corrective action taken or Method 9 test performed.

In addition to the recordkeeping for the monthly periodic visible emission test, NASO is required to keep records on site of all DEQ approved emission factors and calculations in order to demonstrate a reasonable assurance of compliance with any emission limitation/standard for each generator.

The generators have TSP/PM-10, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emission limits. The source is required to keep annual throughput records and fuel supplier records of the distillate oil burned in both generators. Annual throughputs shall be calculated monthly as the sum of each consecutive 12-month period. Keeping annual records will demonstrate a reasonable assurance of compliance with the tons per year emission limits since the limits are based on the maximum allowable annual throughputs. In addition, sample formulas/calculations are provided that can be used to demonstrate a reasonable assurance of compliance with each lb/hr emission limit since the limits are based on the maximum rated capacity of each generator – no additional periodic monitoring is required for the emission limits.

### **Jet Engine Testing (ENGT-001, ENGT-002, ENGT-003, and ENGT-004)**

These test cells have no applicable requirements other than the general conditions and therefore no additional periodic monitoring is required.

### **Fuel Pumping Stations (Ref. Nos. GSTA-001 and GSTA-005)**

The gasoline fuel pumping stations (combined) have no emission limits. Periodic monitoring includes the proper operation, maintenance and control requirements of Rule 4-37 including Stage I vapor control. The source is required to monitor gasoline delivery for Stage I vapor recovery usage once per year and to maintain a record of the observation.

### **Painting & Fiberglass Maintenance Operations (HANG-023, HANG-111, HANG-122, HANG-137, HANG-200, HANG-404, and HANG- 500, PNTS-003, PNTS-004, PNTS-047, and PNTS-700)**

HANG-023, HANG-111, HANG-122, HANG-137, HANG-200, HANG-404, and HANG- 500 are hanger-painting operations, PNTS-047 is a corrosion control hanger, PNTS-003 and PNTS-004, and PNTS -700 is an aircraft painting operation. These painting operations are subject to 40 CFR Part 63, Subpart GG. The General Provisions (Subpart A) of 40 CFR Part 63 that apply were identified under the General Requirements Section for all the painting operations. The following documents were used to incorporate Aerospace NESHAP requirements: 1) National Emission Standards for Aerospace Manufacturing and Rework Facilities – Summary of

Requirements for Implementing the NESHAP (EPA-456/R-97-006, December 1998); this document includes all amendments and changes to 40 CFR Part 63, Subpart GG through 9/1/98, and 2) Naval Air Station, Whidbey Island (Oak Harbor, Washington) Title V Permit – Issued 7/27/1999.

PNTS-003 and PNTS-047 have an opacity limit of five (5) percent - no visible emissions are expected. Periodic monitoring for visible emissions from PNTS-003 and PNTS-047 includes a monthly visible emission observation with corrective action and/or Method 9 if any visible emission is observed. NASO is required to keep records of each monthly visible emission check, and any corrective action taken on a stack or vent exhaust including a Method 9 visible emission test.

In addition to the recordkeeping for the monthly periodic visible emission test, NASO is required to keep records of all DEQ-approved emission factors, Material Safety Data Sheets, and calculations in order to show a reasonable assurance of compliance with any emission limitations/standard for the painting operations.

#### Emission Factors: MSDS Data

PNTS-003 has a total annual material throughput of 6,876 gal/yr and a 6.3 lb/hr and 9.2 tpy VOC emission limit. PNTS-047 has a total annual material throughput of 16,842 gal/yr and a 28.1 lb/hr and 20.7 tpy emission limit. Annual throughputs are to be calculated monthly as the sum of each consecutive 12-month period.

Hourly emissions were calculated based on maximum annual emissions divided by the hours of operation.

PNTS-003:  $9.2 \text{ ton/yr} \times 2000 \text{ lb/1 ton} / 2920 \text{ hour/yr} = 6.3 \text{ lb/hr}$

PNTS-047:  $20.7 \text{ ton/yr} \times 2000 \text{ lb/1 ton} / 1473 \text{ hour/yr} = 28.1 \text{ lb/hr}$

Annual emissions were calculated by multiplying the annual throughputs for each material by its respective VOC content:

PNTS-003 or PNTS-047:  $\text{gal/yr (material)} \times \text{lb VOC/gal (MSDS)} \times 1 \text{ ton}/2000 \text{ lb} = \text{tpy VOC}$

#### **JP-5 Storage Tanks (TNKU-022, TNKU-064, TNKA-133, TNKA-146, TNKU-077)**

TNKU-022, TNKU-064, TNKA-133, and TNKA-146 are in the size range of 10,569 gallon to less than 19,817 gallon size range and therefore exempt from NSPS Subpart Kb standards except for recordkeeping requirements in 60.116 b(a) and 60.116 b(b). TNKU-077 is in the 19,817 gallon to less than 39,898 gallon size range with a vapor pressure greater than or equal to 2.16 psi and therefore subject to the additional recordkeeping requirements of 60.116 b(e) – no additional monitoring is required for these tanks.

#### **Woodworking (WOOD-012)**

Virginia regulations (9 VAC 5-40-2270 B, Rule 4-17) require a controlled particulate emission

rate of 0.05 gr/dscf from each woodworking operation. A sample calculation is provided to demonstrate a reasonable assurance of compliance with the 0.05 gr/dscf particulate emission standard. The following equation was used to change 0.05 gr/dscf to lb/hr and compare that value to the estimated actual emissions from the cyclone or baghouse.

$$\text{PM (lb/hr)} = \text{SFR} \times (68 + 460/\text{AST} + 460) \times 0.95 \times \text{MAC} \times 60 \text{ min} \times 1 \text{ lb}/7000 \text{ gr} \\ = 2.3 \text{ lb/hr (maximum allowed)}$$

SFR = Stack Flow Rate (cf/min) = 5640

AST = Actual Stack Temperature (degrees F) = 68

MAC = Maximum Allowable Concentration (gr/dscf) = 0.05

The 0.95 assumes there is 5% moisture in the stack

Based on the emission factor of 2 lb PM/hr for woodworking operations using a cyclone/baghouse (SCC 30700807) there is a reasonable assurance of compliance with the 0.05 gr/dscf applicable emission standard. In addition, the source is being required to perform an annual internal inspection on each cyclone to insure structural integrity and to maintain and operate any cyclone according to the manufacturer's recommendations. NASO has an opacity limit of 20 percent for the cyclone exhaust at the woodworking shop – no visible emissions are expected. They are to perform an annual visible emission evaluation to assure compliance with the opacity limit. Annual opacity evaluations are considered sufficient for a woodworking shop that operates less than 1500 hours per year. Corrective action and/or a tiered Method 9 shall be performed if there are any visible emissions. NASO is required to keep records of each annual visible emission evaluation and any corrective action taken or Method 9 test performed. Each woodworking shop has a cyclone controlling particulate emissions.

### **STREAMLINED REQUIREMENTS**

The only units streamlined in this Title V permit were the Insignificant units.

### **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

### **STATE ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

9 VAC 5-30-310, Odorous Emissions

9 VAC 5-50-320, Toxic Pollutants

### **FUTURE APPLICABLE REQUIREMENTS**

No future NESHAP/MACT standards appear to apply to this source.

## INAPPLICABLE REQUIREMENTS

Unit Ref. No.	Citation	Description of requirement	Why the requirement does not apply
FACILITY	40 CFR 61 Subpart C - NESHAP for Beryllium	Applies to machine shops at stationary sources which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5% Beryllium by weight.	NAS Oceana does not process alloy containing greater than 5 weight percent beryllium.
FACILITY	40 CFR 61, Subpart M - NESHAP for Asbestos	NESHAP Standard for Asbestos	Only the 40 CFR 61, Subpart M requirements for Demolition and Renovation (61.145), Waste Disposal for Demolition and Renovation (61.150), Air Cleaning for Demolition and Renovation (61.152), and the general Applicability (61.140) and Definitions (61.141) and Reporting (61.153) are applicable at NAS Oceana. The remaining sections of Subpart M are not applicable.
FACILITY	40 CFR 63, Subpart Q - NESHAP for Industrial Process Cooling Towers	NESHAP Standard for Cooling Towers Using Chromium Based Water Treatment Chemicals	Chromium based water treatment chemicals are not used in cooling towers at NAS Oceana.
FACILITY	40 CFR 63, Subpart T - NESHAP for Halogenated Solvent Cleaning	NESHAP for Halogenated Solvent Cleaning	NAS Oceana does not use solvents containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination of these in concentrations greater than 5 weight percent.
FACILITY	40 CFR 82	Protection of Stratospheric Ozone	Only the 40 CFR 82 requirements for Servicing of Motor Vehicle Air Conditioners (Subpart B), ban on sale and distribution of non-essential ozone depleting products (Subpart C), and requirements for refrigerant recycling equipment and personnel training (Subpart F) are applicable to NAS Oceana operations. 40 CFR 82, Subparts A, D, E, and G are not applicable.

Unit Ref. No.	Citation	Description of requirement	Why the requirement does not apply
FACILITY	40 CFR 60, Subpart D	NSPS for Fossil-Fuel-Fired Steam Generators Constructed, Modified, or Reconstructed After 17 August 1971 that have a Maximum Design Heat Input Capacity Greater Than or Equal to 250 MMBtu/hr	Boilers with maximum rated heat input capacities greater than or equal to 250 MMBtu/hr are not present at NAS Oceana.
FACILITY	40 CFR 60, Subpart Da	NSPS for Electric Utility Steam Generating Units Constructed, Modified, or Reconstructed After 18 September 1978 that have a Maximum Design Heat Input Capacity Greater Than or Equal to 250 MMBtu/hr	Boilers with maximum rated heat input capacities greater than or equal to 250 MMBtu/hr are not present at NAS Oceana. NAS Oceana is also not an electric utility.
FACILITY	40 CFR 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units Constructed, Modified, or Reconstructed After 19 June 1984 that have a Maximum Design Heat Input Capacity Greater Than or Equal to 100 MMBtu/hr	Boilers with maximum rated heat input capacities greater than or equal to 100 MMBtu/hr are not present at NAS Oceana.
FACILITY	40 CFR 60, Subpart K	NSPS for Storage Vessels for Petroleum Liquids Constructed, Modified, or Reconstructed After 11 June 1973 and Prior to 19 May 1978 With Storage Capacity Greater Than 40,000 Gallons	The installation dates for petroleum liquid storage tanks greater than 40,000 gallons at NAS Oceana do not fall within the applicability dates for Subpart K.
FACILITY	40 CFR 60, Subpart Ka	NSPS for Storage Vessels for Petroleum Liquids Constructed, Modified, or Reconstructed After 18 May 1978 and Prior to 23 July 1984 With Storage Capacity Greater Than 40,000 Gallons	The installation dates for petroleum liquid storage tanks greater than 40,000 gallons at NAS Oceana do not fall within the applicability dates for Subpart Ka.
All Internal Combustion Engines (ICGF-*** )	9 VAC 5-40-880, et. seq. Rule 4-8 - Emissions Standards for Fuel Burning Equipment	PM and SO <sub>2</sub> emissions standards for fossil fuel fired equipment.	Internal combustion engines are not "fuel burning equipment" based on the definition in 9 VAC 5-40-890.
Volatile Organic Liquid Storage and Transfer Operations (Primarily Tanks) TNKA-*** TNKU-***	9 VAC 5-40-3410 et. seq. Rule 4-25 - Emission Standards for Volatile Organic Compound Storage and Transfer Operations	Emission standards for VOC storage and transfer operations. Applies only to tanks with a storage capacity greater than 2,000 gallons and organic liquids with a vapor pressure greater than or equal to 1.5 psia.	Volatile organic liquids stored in significant quantities have vapor pressures less than 1.5 psia with the exception of gasoline. Gasoline storage and transfer operations are regulated by Rule 4-37 (9 VAC 5-40-5200 et. Seq., which exempts these operations from Rule 4-25.

Unit Ref. No.	Citation	Description of requirement	Why the requirement does not apply
Aircraft Coating Operations PNTS-***	9 VAC 5-40-4760, et. seq. Rule 4-34 - Emission Standards for Miscellaneous Metal Parts and Products Coating Application Systems	VOC standards for coating operations of miscellaneous parts and products.	Coating of fully assembled aircraft are exempt.
Petroleum Liquid Storage Tanks TNKA-*** TNKU-*** Except:  TNKA-082, -095, -097, -101, -104;  TNKU -001, -029, -030, -031, -035, -036, -037, -046, -056, -057, -068, -069, -070	9 VAC 5-40-5220, et. seq. Rule 4-37 - Emissions Standards for Petroleum Liquid Storage and Transfer Operations	Emission standards for petroleum liquid storage and transfer operations for petroleum liquids with a vapor pressure greater than or equal to 1.5 psia.	Petroleum liquids stored and transferred at NAS Oceana have vapor pressures less than 1.5 psia with the exception of gasoline.
FACILITY	9 VAC 5-40-5220 A Rule 4-37 - Emissions Standards for Petroleum Liquid Storage and Transfer Operations-Petroleum Liquid Storage in Fixed Roof Tanks	Emission standards for petroleum liquid storage and transfer operations for petroleum liquids with a vapor pressure greater than or equal to 1.5 psia for fixed roof storage tanks having a capacity of greater than 40,000 gallons.	Petroleum liquids stored in significant quantities have vapor pressures less than 1.5 psia with the exception of gasoline. Gasoline is not stored in fixed roof tanks having a capacity greater than 40,000 gallons.
FACILITY	9 VAC 5-40-5220 B Rule 4-37 - Emissions Standards for Petroleum Liquid Storage and Transfer Operations-Petroleum Liquid Storage in Floating Roof Tanks	Emission standards for petroleum liquid storage and transfer operations for petroleum liquids with a vapor pressure greater than or equal to 1.5 psia for floating roof storage tanks having a capacity of greater than 40,000 gallons.	Petroleum liquids stored in significant quantities have vapor pressures less than 1.5 psia with the exception of gasoline. Gasoline is not stored in floating roof tanks having a capacity greater than 40,000 gallons.
FACILITY	9 VAC 5-40-5220 C Rule 4-37 - Emissions Standards for Petroleum Liquid Storage and Transfer Operations-Gasoline Bulk Loading at Bulk Terminals	Emission standards for petroleum liquid storage and transfer operations for petroleum liquids with a vapor pressure greater than or equal to 1.5 psia at bulk terminals.	Bulk terminals not present at NAS Oceana.

## INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

**Abrasive Blasting**

Emission Unit No.	Emission Unit Description	Exemption Code (see below)	Pollutant(s) Emitted	Size/ Rated Capacity	Building/ Location
ABRA-GRP1	Gloveboxes	2	TSP/PM-10	NA	Various

**Boilers**

Emission Unit No.	Emission Unit Description	Exemption Code (see below)	Pollutant(s) Emitted	Size/ Rated Capacity	Building/ Location
BOIL-GRP1	Boilers - NG	2	TSP/PM-10, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC	NA	Various
BOIL-GRP2	Boilers - DO	2	TSP/PM-10, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC	NA	Various

**NOTE:**      a)      Boilers range from < 0.3 million BTU/hr to < 10 million BTU/hr  
                  b)      NG = Natural Gas & DO = Distillate Oil

**Degreasing – Non-Halogenated**

Emission Unit No.	Emission Unit Description	Exemption Code (see below)	Pollutant(s) Emitted	Size/ Rated Capacity	Building/ Location
DEGS-GRP1	Parts Degreasers	2	VOC	NA	Various

**Fuel Pumps**

Emission Unit No.	Emission Unit Description	Exemption Code (see below)	Pollutant(s) Emitted	Size/ Rated Capacity	Building/ Location
GSTA-GP1	Gasoline Service Stations	2	VOC	NA	541, 106, 220, 541, 603, 013, 830

### **Generators**

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Exemption Code (see below)</b>	<b>Pollutant(s) Emitted</b>	<b>Size/ Rated Capacity</b>	<b>Building/ Location</b>
ICGF-GRP1	Generators - diesel	2	TSP/PM-10, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC	NA	Various

**Note: All generators are for emergency use and less than 4,476 kW.**

### **Painting**

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Exemption Code (see below)</b>	<b>Pollutant(s) Emitted</b>	<b>Size/ Rated Capacity</b>	<b>Building/ Location</b>
PNTS-700	Painting	2	TSP, PM-10, VOC	NA	513

### **Stripping**

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Exemption Code (see below)</b>	<b>Pollutant(s) Emitted</b>	<b>Size/ Rated Capacity</b>	<b>Building/ Location</b>
STRP-001	Air Stripper	2	VOC	NA	603

### **Storage Tanks**

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Exemption Code (see below)</b>	<b>Pollutant(s) Emitted</b>	<b>Size/ Rated Capacity</b>	<b>Building/ Location</b>
TNKA-GRP1	Aboveground Horizontal Fixed Roof Storage Tanks (Distillate Oil)	2	VOC	NA	Various

TNKA-GRP2	Aboveground Horizontal Fixed Roof Storage Tanks (10/10 Oil)	2	VOC	NA	1100 1102 1106
TNKA-GRP3	Aboveground Horizontal Fixed Roof Storage Tanks (Jet Kerosene)	2	VOC	NA	Various
TNKA-GRP4	Aboveground Horizontal Fixed Roof Storage Tanks (Gasoline)	2	VOC	NA	Various
TNKA-GRP6	Aboveground Horizontal Fixed Roof Storage Tanks (Fuel Oil No. 6)	2	VOC	NA	603
TNKU-GRP7	Underground Horizontal Fixed Roof Storage Tanks (Distillate Oil)	2	VOC	NA	Various
TNKU-GRP8	Underground Horizontal Fixed Roof Storage Tanks (Jet Kerosene/JP-5 Jet Fuel)	2	VOC	NA	Various
TNKU-GRP9	Underground Horizontal Fixed Roof Storage Tanks (Gasoline/RVP-13)	2	VOC	NA	Various

### **Waste Handling**

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Exemption Code (see below)</b>	<b>Pollutant(s) Emitted</b>	<b>Size/ Rated Capacity</b>	<b>Building/ Location</b>
WSTL-GRP1	Oil/Water Separators	2	VOC	NA	Various

**Exemption Codes:**

- 1) **Named insignificant unit: 9 VAC 5-80-720 (A)**
- 2) **Insignificant by virtue of emission levels: 9 VAC 5-80-720 (B)**
- 3) **Insignificant by size or production level (rated capacity): 9 VAC 5-80-720 (C)**

**CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

**PUBLIC PARTICIPATION**

A public notice regarding the draft permit will appear in the Norfolk *Virginian-Pilot*. Public comments will be accepted from March 13, 2003, through April 13, 2003.

**ATTACHMENT A**  
**(July 11, 2000 Permit)**

**ATTACHMENT B**  
**(1998 Facility Emission Summary)**  
**1998 Annual Emission Update**  
**AIRS 644 Report**

# **ATTACHMENT C (BOILER/GENERATOR) CALCULATIONS**

# **ATTACHMENT D PAINTING CALCULATIONS**